AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-13. (Canceled)

14. (Previously presented) A method comprising:

sending a request message to establish an optical link from a first node to a second node via electrical signals over an electrically transmissive medium;

receiving a request granted message from the second node via electrical signals over the electrically transmissive medium, where the request granted message includes data associated with a location of the second node, and a velocity and/or an acceleration of the second node;

establishing the optical link between the first node and the second node based on receipt of the request granted message and based on the location and the velocity and/or the acceleration of the second node; and

transmitting data between the first node and the second node via optical signals over the optical link.

15. (Previously presented) The method of claim 14, where the optical link comprises a free-space link.

16. (Previously Presented) The method of claim 14, where the optical link comprises an optical fiber.

17. (Previously Presented) The method of claim 14, further comprising:

receiving a request denied message from the second node via electrical signals over the electrically transmissive medium, where the request denied message includes a time period that the first node is to wait before sending another request message to the second node.

18. (Previously Presented) The method of claim 14, where the electrical signals comprise radio-frequency (RF) signals and where the electrically transmissive medium comprises free-space.

19. (Previously Presented) The method of claim 14, where the electrically transmissive medium comprises a wired medium.

20. (Previously Presented) The method of claim 14, where establishing an optical link comprises:

pointing at least one steerable aperture at the second node; and

establishing the optical link via the steerable aperture.

21. (Previously Presented) The method of claim 20, where the steerable aperture comprises a telescope.

22. (Previously Presented) A first node in a network, comprising:

a non-optical transceiver configured to:

send a request message to establish an optical link from the first node to a second node via electrical signals over an electrically transmissive medium, where the second node comprises a mobile node, and

receive a request granted message from the second node via electrical signals over the electrically transmissive medium, where the request granted message includes data associated with a pitch, roll and yaw associated with the second node; and

an optical subsystem configured to:

establish the optical link between the first node and the second node based on the pitch, roll and yaw associated with the second node, and

transmit data between the first node and the second node via optical signals over the optical link.

23-34. (Canceled)

35. (Previously Presented) A method, comprising:

receiving a first mobile node's location and velocity from the first mobile node via a non-optical channel;

pointing a steerable optical aperture towards the first mobile node based on the received location and velocity; and

communicating with the first mobile node using an optical channel via the steerable optical aperture.

36. (Previously Presented) The method of claim 35, where the first mobile node's velocity includes a three dimensional velocity vector.

37. (Previously Presented) The method of claim 35, further comprising:

receiving the first mobile node's acceleration from the first mobile node via the non-optical channel, where pointing the optical aperture towards the first mobile node is further based on the received acceleration.

38. (Previously Presented) The method of claim 37, where the first mobile node's acceleration includes a three dimensional acceleration vector.

39. (Previously Presented) The method of claim 37, further comprising:

receiving pitch, roll and yaw information, associated with the first mobile node, from the first mobile node via the non-optical channel, where pointing the optical aperture towards the first mobile node is further based on at least one of the received pitch, roll or yaw information.

40. (Previously Presented) The method of claim 35, where the non-optical channel comprises a radio-frequency channel.

41. (Previously Presented) The method of claim 35, where the steerable optical aperture is associated with a second mobile node and where the method further comprises:

transmitting the second mobile node's location and velocity from the second mobile node to the first mobile node via the non-optical channel; and

receiving data from the first mobile node using the optical channel.

42. (Currently Amended) A method, comprising:

receiving data from a first node via a first optical channel at a second node, where the second node is a mobile node, and where receiving the data from the first node at the second node includes:

pointing a first optical aperture towards the first node, and

receiving the data from the first node via the first optical channel using the first optical aperture;

establishing a second optical channel with a third node from the second node based on a location and velocity of the second node, where establishing the second optical channel with the third node from the second node includes:

receiving a location and at least one of a velocity or an acceleration of the third node,

receiving a pitch, roll, and yaw associated with the third node,

pointing a second optical aperture towards the third node based on the location and velocity of the second node, the location and velocity of the third node, and the pitch, roll, and yaw associated with the third node; and

forwarding the data from the second node to the third node using the second optical channel.

43-46. (Canceled)

47. (Previously Presented) A method, comprising:

receiving a three dimensional velocity vector and a three dimensional acceleration vector, associated with movement of a first mobile node, from the first mobile node via a non-optical channel;

predicting a trajectory of the first mobile node based on the three dimensional velocity vector and the three dimensional acceleration vector;

pointing an optical aperture towards the first mobile node based on the predicted trajectory; and

communicating with the first mobile node using an optical channel via the optical aperture.

48. (Previously Presented) The method of claim 47, where the non-optical channel comprises a radio-frequency channel.

49. (Previously Presented) The method of claim 47, where the optical aperture is associated with a second mobile node, where a three dimensional velocity vector and a three dimensional acceleration vector is associated with the second mobile node and where pointing the optical aperture towards the first mobile node is further based on the three dimensional velocity vector and three dimensional acceleration vector associated with the second mobile node.

50. (Previously Presented) The method of claim 49, where a pitch, roll and yaw is associated with the second mobile node and where pointing the optical aperture towards the first mobile node is further based on the pitch, roll and yaw associated with the second mobile node.

51. (Previously Presented) A method, comprising:

learning of a presence of a neighboring first mobile node in an ad-hoc network by receiving a first notification message from the first mobile node via a non-optical channel, where the first notification message includes an identifier of the first mobile node and a location of the first mobile node;

sending, via the non-optical channel, a first request message to establish an optical channel with the first mobile node;

receiving a first request granted message from the first mobile node via the non-optical channel responsive to the first request message;

pointing a steerable optical aperture towards the first mobile node, based on the location of the first mobile node and receipt of the first request granted message, to establish the optical channel; and

communicating with the first mobile node via the optical channel and the steerable optical aperture.

52. (Previously Presented) The method of claim 51, where the notification message further includes at least one of a velocity or acceleration of the first mobile node.

53. (Previously Presented) The method of claim 52, where pointing the steerable aperture towards the first mobile node is further based on the at least one of the velocity or acceleration of the first mobile node.

54. (Previously Presented) The method of claim 52, further comprising:

predicting a trajectory of the first mobile node based on the location and the at least one of the velocity or acceleration of the first mobile node,

where pointing the steerable optical aperture towards the first mobile node to establish the optical channel is further based on the predicted trajectory of the first mobile node.

55. (Previously Presented) The method of claim 51, further comprising:

learning of a presence of a neighboring second mobile node in the ad-hoc network by receiving a second notification message from the second mobile node via the non-optical channel, where the second notification message includes an identifier of the second mobile node and a location of the second mobile node.

sending, via the non-optical channel, a second request message to establish an optical channel with the first mobile node;

receiving a second request granted message from the first mobile node via the non-optical channel responsive to the second request message;

pointing the optical aperture towards the second mobile node, based on the location of the second mobile node and receipt of the second request granted message, to establish the optical channel; and

communicating with the second mobile node via the optical channel and the optical aperture.

56-59. (Canceled)